



Nuclear Energy Research Advisory Committee (NERAC)

Office of Nuclear Energy
U. S. Department of Energy

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Background

NERAC was established in 1998 by the U.S. Department of Energy (DOE) to provide independent, expert advice on complex scientific, technical and policy issues that arise in the planning, managing and implementation of DOE's civilian nuclear energy research programs. NERAC assists DOE by reviewing the research and development activities of the Office of Nuclear Energy (NE) and providing advice and recommendations on long-range plans, priorities and strategies to address effectively the scientific and engineering aspects of these efforts. The committee also provides advice on national policy relative to nuclear energy research and development issues as requested by DOE and NE.

The Committee operates in accordance with the Federal Advisory Committee Act (FACA) and has a diverse membership with a balance of disciplines, interests, experiences, points of view and geography from academia and the nuclear industry.

Studies and Reports

During its existence, NERAC has completed several important studies to assist DOE with its nuclear energy research and development activities:

- Nuclear Science and Technology Long-Term Research and Development Plan;
- Isotope Research and Production Plan;
- Nuclear Science and Technology Infrastructure Roadmap;
- Future of University Nuclear Engineering Programs and University Research and Training Reactors;

- A Technology Roadmap for Generation IV Nuclear Energy Systems;
- Nuclear Laboratory Requirements;
- An Evaluation of the Proliferation Resistant Characteristics of Light Water Reactor Fuel with the Potential for Recycle in the United States.

Subcommittees

At the beginning of 2006, NERAC had four Subcommittees:

- *Advanced Nuclear Transformation Technology*, chaired by Nobel Laureate Burton Richter, covering activities of the Advanced Fuel Cycle Initiative and, beginning in FY 2006, the Global Nuclear Energy Partnership.
- *Generation IV*, chaired by Professor Michael Corradini, covering activities of the Generation IV Nuclear Energy Systems program.
- *Modeling*, chaired by NERAC Chairman William Martin, providing a source to which the full committee and its subcommittees can turn for modeling of a technical, economic or policy nature.
- *Evaluations*, chaired by NERAC Vice Chairman John Ahearne, which carries out evaluations of select NE programs as required by the Office of Management and Budget.

Recent Activities

NERAC's 2002 *Technology Roadmap for Generation IV Nuclear Energy Systems* established the path forward that the Generation IV program still follows today. Its 2003 Infrastructure Task Force heavily influenced the creation of the Idaho National Laboratory (INL), and the 2004 NERAC report on Nuclear Laboratory Requirements guides INL's decade-

long effort to become the world's leading nuclear laboratory.

In FY 2006, NERAC is addressing the Department's Global Nuclear Energy Partnership initiative as well as its implications for NE's ongoing Generation IV and Advanced Fuel Cycle Initiative programs.

Further Information

Additional information regarding NERAC and NERAC documents and reports are available electronically on the NE website at <http://nuclear.gov>.

NERAC Members, 2006-2008

William F. Martin, Chairman	Washington Policy and Analysis, Inc.
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